

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

1.-17 (Cancelled)

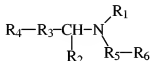
18. (Original) A method for inhibiting Multiple Sclerosis, comprising administering to a patient an effective amount of a deprenyl compound, such that Multiple Sclerosis is inhibited.

19. (Original) The method of claim 18, wherein said deprenyl compound is (-)-desmethyldeprenyl.

20. (Original) The method of claim 18, wherein said patient is a human.

21.-25. (Cancelled)

26. (New) The method of claim 18, wherein said deprenyl compound is a structure of the formula:



wherein

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxy carbonyl;

R₂ is hydrogen or alkyl;

R₃ is a single bond, alkylene, or -(CH₂)_n-X-(CH₂)_m;

in which X is O, S, or N-methyl; m is 1 or 2; and n is 0, 1, or 2;

R₄ is alkyl, alkenyl, alkynyl, heterocyclyl, aryl or aralkyl; and

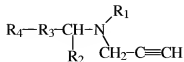
R₅ is alkylene, alkenylene, alkynylene and alkoxylenylene; and

R₆ is C₃-C₆ cycloalkyl or



R₂ and R₄-R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;
and pharmaceutically acceptable salts thereof.

27. (New) The method of claim 18, wherein R₁ is a group that can be removed *in vivo*.
28. (New) The method of claim 18, wherein R₁ is hydrogen.
29. (New) The method of claim 18, wherein R₁ is alkyl.
30. (New) The method of 18, wherein R₁ is methyl.
31. (New) The method of claim 18, wherein R₂ is methyl.
32. (New) The method of claim 18, wherein R₃ is methylene.
33. (New) The method of claim 18, wherein R₄ is aryl.
34. (New) The method of claim 18, wherein R₄ is phenyl.
35. (New) The method of claim 18, wherein R₅ is methylene.
36. (New) The method of claim 16, wherein R₆ is $\text{—C}\equiv\text{CH}$.
37. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



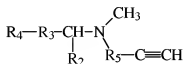
in which

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, or aryloxycarbonyl;

R₂ is hydrogen or alkyl;

R₃ is a bond or methylene; and
R₄ is aryl or aralkyl; or
R₂ and R₄- R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group;
and pharmaceutically acceptable salts thereof.

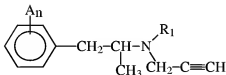
38. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



in which

R₂ is hydrogen or alkyl;
R₃ is a bond or methylene; and
R₄ is aryl or aralkyl; or
R₂ and R₄- R₃ are joined to form, together with the methine to which they are attached, a cyclic or polycyclic group; and
R₅ is alkylene, alkenylene, alkynylene and alkoxylenes;
and pharmaceutically acceptable salts thereof.

39. (New) The method of claim 18, wherein the deprenyl compound is represented by the structure:



in which

R₁ is hydrogen, alkyl, alkenyl, alkynyl, aralkyl, alkylcarbonyl, arylcarbonyl, alkoxy carbonyl, or aryloxy carbonyl;
A is a substituent independently selected for each occurrence from the group consisting of halogen, hydroxyl, alkyl, alkoxy, cyano, nitro, amino, carboxyl, -CF₃, or azido;
n is 0 or an integer from 1 to 5;
and pharmaceutically acceptable salts thereof.